This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claim 1 (previuosly Amended)   A method of image filtering, comprising:

 (a) computing a modified auto-correlation in a single direction for each pixel in an image;

 (b) filtering said image with a lowpass filter, wherein said filtering adaptively changes according to the modified auto-correlation; and

 (c) interpolating said image and said filtered image from step (b) wherein said interpolating at said each pixel depends upon said modified auto-correlation in said single direction.

Claim 2 (previously Amended) The method of claim 1, further comprising:

 (a) after steps (a)-(c) of claim 1 repeating steps (a)-(c) of claim 1 with said single direction replaced by a second direction, said second direction perpendicular to said single direction; and with said image of step (c) replaced by said interpolated image using said modified auto-correlation in said single direction.

Claim 3 (original) The method of claim 1, wherein:

 (a) said modified auto-correlation of step (a) of claim 1 is $R_{xx}(1)/(R_{xx}(0) + \delta)$ where $R_{xx}(.)$ is the auto-correlation function for the pixel values in an interval about said each pixel and with the DC component removed, and where δ is a parameter.

Claim 4 (original) The method of claim 3, wherein:

 (a) said interpolating of step (c) of claim 1 depends upon the amount $R_{xx}(1)/(R_{xx}(0) + \delta)$ of claim 3 exceeds a threshold.

Claim 5 (original) The method of claim 1, wherein:

 (a) said image is a color channel of a color image.